Further, information obtained during the Science, Space, and Technology Committee's investigation of the meth lab appears to show a pattern of waste, fraud, abuse and misconduct by the NIST Police Services Group.

For example, according to a recent Department of Commerce Inspector General's report, the very officer who caused the explosion on NIST's campus had committed time and attendance fraud by claiming that he worked many hours when he did not.

So how do we know that this is not happening throughout the Police Services Group at NIST?

These unfortunate examples undermine and jeopardize NIST's mission to promote U.S. innovation and industrial competitiveness, which enhances economic security and improves our quality of life.

This legislation is an important step forward to analyze the work of NIST's Police Services Group and outside contractors to ensure that they are adequately securing both NIST campuses to protect NIST employees, contractors, visitors, and surrounding communities from any potential hazards.

This legislation and a thorough review, evaluation, and report by the U.S. Government Accountability Office will provide further recommendations and options to ensure a safe and secure NIST in the future.

Again, I want to thank Chairman LOUDERMILK for his work on this matter, and I urge my colleagues to support the bill.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I yield back the balance of my time.

Mr. LOUDERMILK. Mr. Speaker, I urge my colleagues to join us in this bipartisan effort to ensure the safety and security of many—not just employees, but citizens and visitors to this important facility, and I urge them to support this bill.

I yield back the balance of my time.

The SPEAKER pro tempore (Mr. MOOLENAAR). The question is on the motion offered by the gentleman from Georgia (Mr. LOUDERMILK) that the House suspend the rules and pass the bill, H.R. 5636.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill was passed.

A motion to reconsider was laid on the table.

□ 2000

ELECTRICITY STORAGE INNOVATION ACT

Mr. SMITH of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 5640) to provide for the establishment at the Department of Energy of an Electricity Storage Basic Research Initiative, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 5640

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Electricity Storage Innovation Act''.

SEC. 2. ELECTRICITY STORAGE BASIC RESEARCH INITIATIVE.

(a) AMENDMENT.—Section 975 of the Energy Policy Act of 2005 (42 U.S.C. 16315) is amended to read as follows:

''SEC. 975. ELECTRICITY STORAGE BASIC RESEARCH INITIATIVE.

''(a) INITIATIVE.—

''(1) IN GENERAL.—The Secretary shall carry out a research initiative, to be known as the Electricity Storage Basic Research Initiative, to expand theoretical and fundamental knowledge to control, store, and convert electrical energy to chemical energy and the inverse. This initiative shall support scientific inquiry into the practical understanding of chemical and physical processes that occur within systems involving crystalline and amorphous solids, polymers, and organic and aqueous liquids.

''(2) LEVERAGING.—The Secretary shall leverage expertise and resources from the Basic Energy Sciences Program, Advanced Scientific Computing Research Program, and Biological and Environmental Research Program within the Office of Science, and the Office of Energy Efficiency and Renewable Energy, as provided under subsections (b), (c), and (d).

''(3) TEAMS.—The Secretary shall organize activities under the Electricity Storage Basic Research Initiative to include multidisciplinary teams leveraging expertise from the National Laboratories, universities, and the private sector to the extent practicable. These multidisciplinary teams shall pursue aggressive, milestone-driven basic research goals. The Secretary shall provide sufficient resources for those teams to achieve those goals over a period of time to be determined by the Secretary.

''(4) ADDITIONAL ACTIVITIES.—The Secretary is authorized to organize additional activities under this subsection through Energy Frontier Research Centers, Energy Innovation Hubs, or other organizational structures.

''(b) MULTIVALENT SYSTEMS.—

''(1) IN GENERAL.—The Secretary shall, as part of the Electricity Storage Basic Research Initiative, carry out a program to support research needed to bridge scientific barriers and discover knowledge relevant to multivalent ion materials in electric energy storage systems. In carrying out activities under this subsection, the Director of the Office of Basic Energy Sciences shall investigate electrochemical properties and the dynamics of materials, including charge transfer phenomena and mass transport in materials. The Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under this subsection.

''(2) STANDARD OF REVIEW.—The Secretary shall review the program activities under this subsection to determine the achievement of technical milestones.

''(3) AUTHORIZATION OF APPROPRIATIONS.—

''(A) AUTHORIZATION.—Subject to subsection (e), there are authorized for carrying out activities under this subsection for each of fiscal years 2017 through 2020—

''(i) $50,000,000 from funds within the Basic Energy Sciences Program account; and

''(ii) $25,000,000 from funds within the Energy Efficiency and Renewable Energy account.

''(B) PROHIBITION.—No funds authorized under this subsection may be obligated or expended for commercial application of energy technology.

''(c) ELECTROCHEMISTRY MODELING AND SIMULATION.—

''(1) IN GENERAL.—The Secretary shall, as part of the Electricity Storage Basic Research Initiative, carry out a program to support research to model and simulate organic electrolytes, including their static and dynamic electrochemical behavior and phenomena at the molecular and atomic level in monovalent and multivalent systems. In carrying out activities under this subsection, the Director of the Office of Basic Energy Sciences shall, in coordination with the Associate Director of Advanced Scientific Computing Research, support the development of high performance computational tools through a joint development process to maximize the effectiveness of current and projected high performance computing systems. The Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under this subsection.

''(2) STANDARD OF REVIEW.—The Secretary shall review the program activities under this subsection to determine the achievement of technical milestones.

''(3) AUTHORIZATION OF APPROPRIATIONS.—

''(A) AUTHORIZATION.—Subject to subsection (e), there are authorized for carrying out activities under this subsection for each of fiscal years 2017 through 2020—

''(i) $30,000,000 from funds within the Basic Energy Sciences Program and Advanced Scientific Computing Research Program accounts; and

''(ii) $15,000,000 from funds within the Energy Efficiency and Renewable Energy account.

''(B) PROHIBITION.—No funds authorized under this subsection may be obligated or expended for commercial application of energy technology.

''(d) MESOSCALE ELECTROCHEMISTRY.—

''(1) IN GENERAL.—The Secretary shall, as part of the Electricity Storage Basic Research Initiative, carry out a program to support research needed to reveal electrochemistry in confined mesoscale spaces, including scientific discoveries relevant to bioelectrochemistry and electrochemical energy conversion and storage in confined spaces and the dynamics of these phenomena. In carrying out activities under this subsection, the Director of the Office of Basic Energy Sciences and the Associate Director of Biological and Environmental Research shall investigate phenomena of mesoscale electrochemical confinement for the purpose of replicating and controlling new electrochemical behavior. The Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under this subsection.

''(2) STANDARD OF REVIEW.—The Secretary shall review the program activities under this subsection to determine the achievement of technical milestones.

''(3) AUTHORIZATION OF APPROPRIATIONS.—

''(A) AUTHORIZATION.—Subject to subsection (e), there are authorized for carrying out activities under this subsection for each of fiscal years 2017 through 2020—

''(i) $20,000,000 from funds within the Basic Energy Sciences Program and the Biological and Environmental Research Program accounts; and

''(ii) $10,000,000 from funds within the Energy Efficiency and Renewable Energy account.

''(B) PROHIBITION.—No funds authorized under this subsection may be obligated or expended for commercial application of energy technology.

''(e) FUNDING.—No additional funds are authorized to be appropriated under this section. This section shall be carried out using funds otherwise authorized by law.''.

(b) TABLE OF CONTENTS AMENDMENT.—The item relating to section 975 in the table of contents of such Act is amended to read as follows:

''Sec. 975. Electricity Storage Basic Research Initiative.''.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Texas (Mr. SMITH) and the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) each will control 20 minutes.

The Chair recognizes the gentleman from Texas.

GENERAL LEAVE

Mr. SMITH of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and include extraneous material on H.R. 5640, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Texas?

There was no objection.

Mr. SMITH of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of this bill, H.R. 5640, the Electricity Storage Innovation Act, which is part of the majority leader's Innovation Initiative in this House. The legislation will prioritize basic energy research and innovation and provides important statutory authority and direction for the Department of Energy's groundbreaking basic research in electricity storage.

Electricity storage is one of the next frontiers in our energy future. Innovations leading to advanced, next generation batteries could help bring affordable electricity and renewable energy to the market without costly subsidies or mandates. By investing in the basic scientific research that will lead to advanced battery technology, we can enable utilities to store and deliver power produced elsewhere on demand. This will allow us to take advantage of energy from all of our diverse national resources across the country.

As the Nation's lead Federal agency for basic research in the physical sciences, the Department of Energy's Office of Science is the ideal leader for this fundamental scientific research. The DOE, national labs, and our universities have the resources and capacity to pursue the science necessary to understand and develop advanced electricity storage systems.

H.R. 5640 authorizes the Secretary of Energy to carry out a basic research initiative of advanced chemical and material science focusing on multivalent systems, mesoscale electrochemistry, and high-performance computational modeling and simulation.

This legislation also provides the necessary statutory direction and accountability for translational research in electricity storage, bridging the gap between fundamental science and private sector innovation.

H.R. 5640 focuses the Office of Energy Efficiency and Renewable Energy on early stage research that will not be undertaken by the private sector. H.R. 5640 also outlines the Federal Government's role in research and development by prohibiting the use of this program's funds for the commercial application of energy technology.

The transformative breakthroughs in energy science achieved by researchers at our national labs will empower the private sector to develop innovative electricity storage technologies. The private sector is best suited to bring new battery technology to the commercial energy market.

By directing DOE to conduct this research using existing funds in the Office of Science and the EERE, this legislation ensures responsible use of limited tax dollars for basic research. In short, there is no new or additional spending in this bill.

Scientific research, like the work authorized in this Electricity Storage Innovation Act, requires a long-term commitment. While this groundbreaking science will eventually support the development of new, advanced energy technology by the private sector, Congress must ensure limited Federal dollars are spent wisely and efficiently. Federal research and development can build a foundation for the next major scientific breakthrough. As we shape the future of the Department of Energy, we must prioritize basic energy science and research that only the Federal Government has the resources and mission to pursue.

I want to thank my colleagues on the Science, Space, and Technology Committee for their bipartisan support of this important basic research initiative. I encourage all of my House colleagues to support this legislation tonight.

Mr. Speaker, I reserve the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I yield myself such time as I may consume.

I welcome the opportunity to do everything we can to advance research in electricity storage. Advanced battery technologies can improve the stability of our electric grid and greatly enhance our ability to efficiently use the wide range of clean energy resources that our country is lucky enough to have at our disposal.

This area of research could go a long way to addressing one of the most critical issues of our time: climate change. I appreciate the chairman's enthusiasm for moving as quickly as possible to combat this serious threat. However, I think we could have taken at least a little more time to make sure that we are doing this the right way before rushing this to the floor. Minority committee staff only saw early draft language of this bill a few weeks ago, and last Tuesday, the Department of Energy raised some significant concerns with the current bill.

Of particular concern is the bill's attempt to limit the initiative that it authorizes to basic research activities. As we heard from every single witness at a hearing that the Science, Space, and Technology Committee held on this topic just a month ago, as well as from DOE, there is no clear boundary that divides basic and applied research. It is not realistic, and certainly goes against our general understanding of the scientific discovery and innovation, to try to confine the activities of our top researchers in this way. Moreover, this cuts against OMB's definition of the difference between basic and applied research, which actually depends on what these researchers had in mind when they were making their discoveries.

DOE noted that the activities ascribed in this bill would easily be considered applied research. So language attempting to restrict the initiative authorized in this bill to basic research activities could create an inherent conflict in its implementation. Mr. TAKANO offered an amendment in the committee to address the problem in our markup last week, but, unfortunately, it fell on deaf ears in the majority and was rejected. I do not believe that the issues the Department has raised are insurmountable, but I still believe that there was little reason to take this approach when there was ample opportunity to do this in a more bipartisan way.

That said, I do not oppose passage of this bill today in the hope that we can turn it into something we can all support in partnership with our friends in the Senate.

Mr. Speaker, I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I yield 2 minutes to the gentleman from Texas (Mr. WEBER), who is the chairman of the Energy Subcommittee.

Mr. WEBER of Texas. Mr. Speaker, I rise today in support of H.R. 5640, the Electricity Storage Innovation Act. This legislation directs the Department of Energy to focus on basic research that provides the foundation for technology breakthroughs in battery storage technology.

In the field of electricity storage research, there is a lot of excitement about more efficient batteries that could operate for longer durations under decreased charge times, but not enough people are asking about how we could design a battery system that moves more electrons at the atomic level—a key aspect to drastically increasing the efficiency or power in a battery. This transformational approach, known as multivalent ion intercalation, will use the foundational study of electrochemistry to build a better battery from the ground up.

Mr. Speaker, in Congress, we must take the long-term view. We must be patient. We must make smart investments in research that can lead to the next big discovery. H.R. 5640 authorizes the fundamental chemistry and materials research that can lead to advanced electricity storage technology and allows us to gain new knowledge

that could provide benefits across the economy. Pardon the pun, but that is our charge.

DOE must prioritize basic research over grants for technology that is ready for commercial deployment. When the government steps in to push today's technology in the energy market, it competes, Mr. Speaker, against private investors and uses limited taxpayer resources to do so. But when the government supports basic research and development, everyone has the opportunity to access that fundamental knowledge that can lead to the development of future energy technologies.

Mr. Speaker, I want to thank Chairman SMITH for introducing this important legislation to prioritize fundamental science research. I urge my colleagues to support this innovative, fiscally responsible legislation. You know I am right.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I have no further requests for time.

Mr. Speaker, I yield back the balance of my time.

Mr. SMITH of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, H.R. 5640 authorizes innovative basic research that will lead to the next generation of electricity storage technology. By harnessing the expertise of our Nation's national labs and universities, we can lay the fundamental scientific groundwork for the private sector's development of new, transformative advanced batteries in the future.

I especially want to thank my colleagues on the Science, Space, and Technology Committee who have cosponsored H.R. 5640. They include DAN LIPINSKI, STEVE KNIGHT, RANDY NEUGEBAUER, BILL POSEY, RANDY HULTGREN, RANDY WEBER, JOHN MOOLENAAR, and BRIAN BABIN.

I also want to thank the dozens of researchers and stakeholders who provided feedback as we developed this legislation.

I want to reiterate that H.R. 5640 authorizes no new Federal spending.

Mr. Speaker, I urge the adoption of this commonsense, bipartisan legislation, which is part of Majority Leader MCCARTHY's Innovation Initiative.

Finally, Mr. Speaker, tonight we are considering four Science, Space, and Technology Committee bills, and I want to thank the staff members involved. They include, Chris Wydler, Molly Fromm, John Horton, Cliff Shannon, Sarah Jorgenson, Aaron Weston, Emily Domenech, and Ashley Smith, whose birthday is today.

Mr. Speaker, I yield back the balance of my time.

Ms. JACKSON LEE. Mr. Speaker, I rise in strong support of H.R. 5640, the ''Electricity Storage Innovation Act,'' which is designed to expand knowledge to control, store, and convert electrical energy into chemical energy.

Energy is crucial to innovation and economic competitiveness in the global economy.

As a former long-time member of the House Science Committee, I am well-aware of the challenges posed by electricity generation and storage.

At present, there is no ability to store electricity generated by our nation's power grid.

H.R. 5640 requires that the Electricity Storage Basic Research Initiative include research specific to multivalent ion materials in electric energy storage systems and electrochemistry modeling.

My preference for research legislation is to allow the science to lead and not place legislative mandates on what to research.

The legislation encourages multilateral and multidisciplinary research efforts between National Laboratories, universities, and the private sector to achieve milestones in advancing and modernizing electricity storage innovation.

H.R. 5640 specifically designates two subsections for innovation: (1) Electrochemistry Modeling and Simulation, and (2) Mesoscale Electrochemistry.

I strongly support the $150 million in funding to expand theoretical and fundamental knowledge to control, store, and convert electrical energy into chemical energy.

Through this funding, innovation and scientific milestones can be made to bring America to the cutting edge of technological advancement.

H.R. 5640 is an important step in developing the technology needed to remain competitive in the global market of alternative energy.

I urge my colleagues to join me in supporting H.R. 5640.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Texas (Mr. SMITH) that the House suspend the rules and pass the bill, H.R. 5640, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

SOLAR FUELS INNOVATION ACT

Mr. KNIGHT. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 5638) to provide for the establishment at the Department of Energy of a Solar Fuels Basic Research Initiative, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 5638

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Solar Fuels Innovation Act''.

SEC. 2. SOLAR FUELS BASIC RESEARCH INITIATIVE.

(a) AMENDMENT.—Section 973 of the Energy Policy Act of 2005 (42 U.S.C. 16313) is amended to read as follows:

''SEC. 973. SOLAR FUELS BASIC RESEARCH INITIATIVE.

''(a) INITIATIVE.—

''(1) IN GENERAL.—The Secretary shall carry out a research initiative, to be known as the Solar Fuels Basic Research Initiative, to expand theoretical and fundamental knowledge of photochemistry, electrochemistry, biochemistry, and materials science useful for the practical development of experimental systems to convert solar energy to chemical energy.

''(2) LEVERAGING.—The Secretary shall leverage expertise and resources from the Basic Energy Sciences Program and Biological and Environmental Research Program within the Office of Science, and the Office of Energy Efficiency and Renewable Energy, as provided under subsections (b) and (c).

''(3) TEAMS.—The Secretary shall organize activities under the Solar Fuels Basic Research Initiative to include multidisciplinary teams leveraging expertise from the National Laboratories, universities, and the private sector to the extent practicable. These multidisciplinary teams shall pursue aggressive, milestone-driven basic research goals. The Secretary shall provide sufficient resources for those teams to achieve those goals over a period of time to be determined by the Secretary.

''(4) ADDITIONAL ACTIVITIES.—The Secretary is authorized to organize additional activities under this subsection through Energy Frontier Research Centers, Energy Innovation Hubs, or other organizational structures.

''(b) ARTIFICIAL PHOTOSYNTHESIS.—

''(1) IN GENERAL.—The Secretary shall, as part of the Solar Fuels Basic Research Initiative, carry out a program to support research needed to bridge scientific barriers and discover knowledge relevant to artificial photosynthetic systems. In carrying out activities under this subsection, the Director of the Office of Basic Energy Sciences shall support basic research to pursue distinct lines of scientific inquiry, including photoinduced production of hydrogen and oxygen from water, and the sustainable photoinduced reduction of carbon dioxide to fuel products including hydrocarbons, alcohols, carbon monoxide, and natural gas. The Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under this subsection.

''(2) STANDARD OF REVIEW.—The Secretary shall review the program activities under this subsection to determine the achievement of technical milestones.

''(3) AUTHORIZATION OF APPROPRIATIONS.—

''(A) AUTHORIZATION.—Subject to subsection (d), there are authorized for carrying out activities under this subsection for each of fiscal years 2017 through 2020—

''(i) $50,000,000 from funds within the Basic Energy Sciences Program account; and

''(ii) $25,000,000 from funds within the Energy Efficiency and Renewable Energy account.

''(B) PROHIBITION.—No funds authorized under this subsection may be obligated or expended for commercial application of energy technology.

''(c) BIOCHEMISTRY, REPLICATION OF NATURAL PHOTOSYNTHESIS, AND RELATED PROCESSES.—

''(1) IN GENERAL.—The Secretary shall, as part of the Solar Fuels Basic Research Initiative, carry out a program to support research needed to replicate natural photosynthetic processes by use of artificial photosynthetic components and materials. In carrying out activities under this subsection, the Director of the Office of Basic Energy Sciences shall support basic research to expand fundamental knowledge to replicate natural synthesis processes, including the photoinduced reduction of dinitrogen to ammonia, absorption of carbon dioxide from ambient air, molecular-based charge separation and storage, photoinitiated electron transfer, and catalysis in biological or biomimetic systems. The Associate Director of Biological and Environmental Research shall